



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VIII

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DENVER, COLORADO 80202-2466

Ref: 8EPR-EP

January 26, 1999

Subject: Updated "Candidate List of MCLs Recommended for Adoption into State/Tribal Water Quality Standards to Protect the Water Supply Designated Use"

State and Tribal Water Directors:

The purpose of this letter is to transmit to you an updated version of the Region's list of Safe Drinking Water Act (SDWA) Maximum Contaminant Limits (MCLs) recommended for adoption into State and Tribal water quality standards. We recommend adoption of these MCLs as numeric criteria to protect the water supply designated use. A previous version of this list was distributed by the Region with a January 24, 1996 transmittal letter. The list of MCLs is intended to complement the updated national list of Clean Water Act (CWA) § 304(a) criteria recently published by EPA, 63 *Federal Register* 68354-68364, December 10, 1998.

The Region continues to recommend use of the current CWA § 304(a) "water & organisms" human health criteria as the primary source of information for reviewing and revising State and Tribal water supply criteria. However, for some substances the current CWA § 304(a) human health criterion is less stringent than the MCL. For other substances, an MCL has been promulgated, but no CWA § 304(a) criterion is available. In either case, if the State or Tribe has not already done so, the MCL should be adopted as a numeric criterion to protect the water supply designated use.

The Region believes that this approach will improve the level of public health protection provided by State and Tribal water quality standards. Adoption of the enclosed list of MCLs as ambient water quality criteria will help to:

- ▶ protect the raw water supply for water supply utilities,
- ▶ reduce the likelihood that source waters for public water systems will degrade to levels that exceed an MCL and cause public water system noncompliance problems,
- ▶ reduce the likelihood that such water utilities will face burdensome treatment costs,
- ▶ avoid potential adverse human health effects associated with long-term consumption of water containing pollutant concentrations in excess of the MCL,
- ▶ assess water quality conditions and establish protective discharge limitations for point source discharges where appropriate, and
- ▶ ensure that numeric criteria are available when needed for all substances which are regulated under the SDWA or addressed by CWA § 304(a) human health criteria.

MCL CANDIDATE LIST

To help States and Tribes address this issue, enclosed is a list entitled *Candidate List of MCLs Recommended for Adoption into State/Tribal Water Quality Standards to Protect the*



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Water Supply Designated Use. The list should be used in combination with EPA's updated national list of published CWA § 304(a) criteria when reviewing and updating numeric criteria for water supply uses. The list identifies MCLs for priority and non-priority pollutants where either the MCL is more stringent than the CWA human health criterion, or an MCL has been promulgated but no CWA human health criterion is available. The list also:

- ▶ includes current SDWA MCLGs and CWA § 304(a) human health criteria,
- ▶ identifies the currently applicable water supply criterion for each State and approved Tribe in Region VIII, and
- ▶ identifies potential health effects associated with each pollutant.

CWA VS. SDWA METHODS

Questions often arise regarding the similarities and differences in the methodologies used by EPA to develop drinking water standards and CWA § 304(a) criteria. The similarities and differences in the methods are briefly summarized below. For a more complete discussion, see the methodology recently proposed by EPA for derivation of human health criteria pursuant to CWA § 304(a), 63 *Federal Register* 43755-43828, August 14, 1998, or the Advance Notice of Proposed Rulemaking on the Water Quality Standards Regulation, 63 *Federal Register* 36775-36777, July 7, 1998.

Similarities:

- ▶ Both methods typically utilize the same Agency reference dose (for noncarcinogens) or cancer slope factor (for carcinogens).
- ▶ Both methods typically assume an exposure scenario that includes a 70 kg adult and 2 liters of water consumption per day.

Differences:

- ▶ Some chemicals have been treated as carcinogens under the CWA method but not the SDWA method.
- ▶ CWA criteria typically assume 6.5 grams of fish/shellfish consumption per day and tissue concentrations based on a bioconcentration factor for the individual substance, while the SDWA method typically assumes that 20% of total exposure is from drinking water and 80% is from other sources (food, air), unless non-water exposure data are available.
- ▶ SDWA MCLs may be based on non-health factors such as the cost and availability of treatment or the detection limit of an analytical method, particularly for carcinogens.

WHEN NOT TO ADOPT MCLs

Although in some cases it is appropriate to adopt MCLs as numeric criteria to protect water supply uses (i.e., for those pollutants identified on the enclosed list), in other cases the Region does not recommend adoption of MCLs. The rationale is that MCLs which are less-stringent than § 304(a) criteria may be based on non-health considerations. For example, MCLs may be based on factors such as the cost and availability of treatment or the detection limit of an



analytical method. Because health-based CWA § 304(a) criteria for these substances are available, the Region does not recommend adoption of such MCLs. The Clean Water Act and the water quality standards regulation require that water quality criteria be technically-defensible estimates of water quality levels needed to protect designated uses. Under the CWA, economic considerations are appropriately considered in identifying attainable designated uses or establishing temporary variances from numeric criteria. However, such considerations should not influence the adoption of numeric criteria assigned to protect designated uses. For this reason, where a health-based CWA § 304(a) criterion is available, States and Tribes should avoid adoption of MCLs that have a non-health basis.

CONCLUSION

I hope the enclosed list will help States and Tribes in EPA Region VIII establish appropriate numeric criteria to protect water supply uses. We plan to revise the MCL Candidate List periodically, as needed. For example, as the proposed revisions to the CWA § 304(a) human health criteria methodology are implemented, resulting in new or revised § 304(a) criteria, we will periodically update the MCL Candidate List as appropriate. If you have questions or comments, please contact David Moon at (303) 312-6833. As always, we welcome feedback and suggestions regarding how the Region can better support State and Tribal water quality standards programs.

Sincerely,

William P. Yellowtail
Regional Administrator

Enclosure

cc: State and Tribal Water Quality Standards Coordinators

